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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,953	07/24/2003	Jay Stutzman	9606-100	2258
20575	7590	11/04/2004	EXAMINER	
MARGER JOHNSON & MCCOLLOM PC 1030 SW MORRISON STREET PORTLAND, OR 97205			KOBERT, RUSSELL MARC	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/627,953	STUTZMAN, JAY	
	Examiner	Art Unit	
	Russell M Kobert	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 24 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,9,10,12-16,19 and 25 is/are rejected.
- 7) ☒ Claim(s) 3,4,6-8,11,17,18,20-24 and 26 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                    |                                                                             |
|----------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____                                                |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>0704</u> .                                                                | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2829

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. A good example of such a title, although not necessarily related to this specific case, could be "*Method and Apparatus for Passive Optical Characterization of Semiconductor Substrates Subjected to High Energy (MEV) Ion Implantation Using High-Injection Surface Photovoltage.*"

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 9, 10 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Nguyen et al (5882221).

Nguyen et al anticipates (Figures 2 and 5) an IC package testing device comprising:

an IC package receiver (100, 110, 130);

a pressure pad (160);

a lid (180);

a latch (190, 193, 124; see col 4, 48-62); and,

one or more springs (175) that apply a normal force to an IC package through the pressure pad when the lid is in a latched position (col 4, ln 63 - col 5, ln 26); as recited in claim 1.

As to claim 2 having two compliance leaf springs is anticipated by Nguyen et al (see Figure 5).

As to claim 5, the limitations are considered inherent within the apparatus of Nguyen et al because having the pressure pad and lid sized to provide space for positioning multiple leaf springs on both sides of the pressure pad is only considered the intended use of the apparatus and as such does not further limit the apparatus as detailed in claim 1.

Nguyen et al anticipates an IC package testing device comprising:

an IC package receiver (100, 110, 130) including a recess sized and shaped to receive an IC package (140);

a lid (180) attached to said receiver by a hinge (see Figure 1; 181, 121, 122, 123);

a pressure pad (160) positioned in the lid so as to overlie the recess;

a closure mechanism (190, 193, 124; see col 4, 48-62) positioned opposite the hinge, and, a leaf spring (175) coupled by a center pivot (170) to said pressure pad, said leaf spring being formed in a roughly bow shape extending symmetrically about said center pivot to two distal fixed points (points located where leaf spring 175 contacts lid 180), said two distal fixed points pivotally coupled to said lid, wherein said leaf spring applies a normal force to an IC package located in said receiver through the pressure pad when said closure mechanism closes said lid on said IC package receiver (col 4, In 63 - col 5, In 26); as recited in claim 9.

As to claim 10, having the leaf spring (175) further comprising an effective beam length longer than a linear distance between the two distal fixed points is self evident in Figure 2.

As to claim 19, the method described is considered the inherent method of using the apparatus of Nguyen et al.

4. Claim 25 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Nguyen et al (5882221) or Foo et al (6025732).

Nguyen et al clearly anticipates an IC package testing arrangement (Figures 2 and 5) comprising:

- an IC package (140) having predetermined lateral dimensions and a thickness of a predetermined range;

- an IC package receiver (100, 110, 130); and,

- a means (180, 160, 170, 175) for selectably applying a resilient normal force to the IC package; as recited in claim 25.

Foo et al clearly anticipates an IC package testing arrangement (an embodiment according to any of Figure 4, Figure 5, Figure 12, Figure 17 or Figure 22) comprising:

- an IC package having predetermined lateral dimensions and a thickness of a predetermined range;

- an IC package receiver; and,

- a means for selectably applying a resilient normal force to the IC package; as recited in claim 25.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nguyen et al (5882221).

Although Nguyen et al does not specify the operating ranges and material make up of the leaf spring in each of claims 12-16, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have determined the allowable ranges of the modulus of elasticity of the leaf spring in order to provide the necessary force upon the pressure pad to permit proper operation of the semiconductor socket for its intended use. Moreover, the modulus of elasticity of the leaf spring intrinsically has a correlation to the material composition and makeup of the leaf spring. Thus the material chosen to permit the desired modulus of elasticity demonstrates limiting conditions that are determined by routine experimentation and are considered to be within the scope of the invention as disclosed in Nguyen et al.

Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. In re Swain et al., 33 C.C.P.A. (Patents) 1250, 156 F. 2d 239, 70 USPQ 412 ; Minnesota Mining and Mfg. Co. v. Coe, 69 App. D.C.

217, 99 F. 2d 986, 38 USPQ 213 ; Allen et al. v. Coe, 77  
App. D. C. 324, 135 F. 2d 11, 57 USPQ 136 .

7. The following is a statement of reasons for the indication of allowable subject matter:

Claims 3, 4, 6-8, 11, 17, 18, 20-24 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Having a first pivot pin received through coaxially aligned holes in the pressure pad and one or more of said leaf springs, the holes in the pressure pad aligned centrally in the pressure pad and the leaf springs positioned on either side of the pressure pad; and,

second and third pivot pins aligned parallel to the first pivot pin, and received through coaxially aligned holes in the leaf springs and the lid; as detailed in claim 3 has not been found.

Having at least two leaf springs positioned on opposite sides of the pressure pad; as detailed in claim 6 has not been found.

Having at least two leaf springs positioned side-by-side along one side of the pressure pad; as detailed in claim 7 has not been found.

Having multiple leaf springs positioned side-by-side on opposite sides of the pressure pad; as detailed in claim 8 has not been found.

Having the leaf spring further comprising a center pivot attachment hole, spring material extending symmetrically to distal end portions, both end portions terminating in

fixed attachment holes spaced equidistantly from the center pivot attachment hole, and both end portions of the material curving proximally toward the center pivot attachment hole, such that a curvilinear length of the leaf spring is greater than a linear distance between the fixed attachment holes; as detailed in claim 11 has not been found.

Having a first pivot pin received through coaxially aligned holes in the pressure pad and one or more of said leaf springs, said holes in the pressure pad aligned centrally in the pressure pad and said leaf springs positioned on either side of the pressure pad; and, second and third pivot pins aligned parallel to the first pivot pin, and received through coaxially aligned holes in the leaf springs and the lid; as detailed in claim 17 has not been found.

Having the method further comprising applying the variable resilience with a plurality of leaf springs; as detailed in claim 20 has not been found.

Having the means for selectably applying a resilient force to the IC package including a selectable number of springs; as detailed in claim 26 has not been found.

It is further noted that the examiner's reasons are understood to be predicated upon consideration of each of the claims as a whole, and not upon any specific elements of the claims.

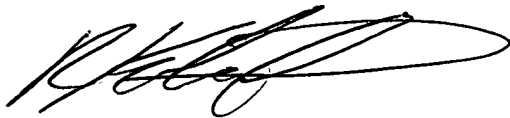
8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Gallagher et al (6086387) shows a lid assembly for a socket adaptable for IC modules of varying thickness and used for burn-in testing.

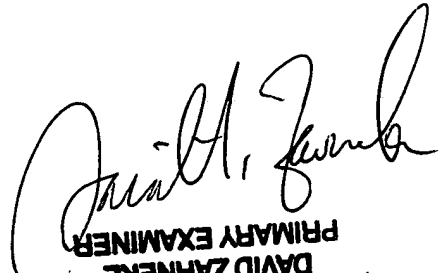


9. A shortened statutory period for response to this action is set to expire three month(s) from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russell Kobert whose telephone number is (571) 272-1963. The Examiner's Supervisor, Michael J. Tokar, can be reached at (571) 272-1812. For an automated menu of Tech Center 2800 phone numbers call (571) 272-2800.



Russell M. Kobert  
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Group Art Unit 2829  
October 25, 2004



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PRIMARY EXAMINER  
10/27/04